

REMARKS/ARGUMENTS

Claims 7-21 remain in this application. Claims 1-6 have been canceled. Claims 7, 9, 11-14, 17 and 18 have been amended and Claims 20 and 21 have been added.

I. The Restriction Requirement

The Office Action requires restriction to one of the following inventions:

Group I, Claims 1-6, drawn to polypeptides being aggrecanase substrates, wherein the aggrecanase is set forth by SEQ ID NOs: 8 and 9, classified in class 530, subclass 300; and

Group II, Claims 7-19, drawn to a method for identifying a compound that inhibits aggrecanase activity, classified in class 435, subclass 23.

Applicants representative provisionally elected without traverse to prosecute the invention of Group II, Claims 7-19. Claims 1-6 are canceled and Applicants affirm this election herein, thus obviating the requirement for restriction. Reconsideration and withdrawal of the restriction requirement are respectfully requested.

II. The Objection to the Specification

The Office Action objects to the specification asserting that (1) the specification is inconsistent in the spelling of the name and in the numbering for form of aggrecanase; (2) the specification is confusing in its use of the terms aggrecanase-1 and -2; (3) that a number of abbreviations need to be expanded; (4) that page 7, line 20, refers to the wrong table; and (5) that Table 3 is unclear for not explaining the terms Aedans and (Dabcyl)K-amide.

Applicants submit herein a Substitute Specification to obviate the objection to the specification in response to assertions (1) – (4). With regard to assertion (5), Applicants respectfully submit that one of skill in the art would readily appreciate that Aedans and (Dabcyl)K-amide are fluorescent labeling agents. Reconsideration and withdrawal of the objection to the specification are respectfully requested.

III. The Objection to the Claims

The Office Action objects to the claims asserting that the term aggrecanase “should be written starting with small letter a.”

Applicants amend the claims herein to obviate the objection to the claims. Reconsideration and withdrawal of the objection to the claims are respectfully requested.

IV. The Objection to the Drawings

The Office Action objects to Fig.2, asserting that (1) the units of relative activities are not defined; and (2) Fig. 2 does not contain a description of the y-axis.

In response, Applicants respectfully submit that the specification discloses that the units for the y-axis are relative activities for the 56 aggrecanase -1 and -2, respectfully, peptides set forth on the x-axis. See, e.g., page 16 and Fig. 2. A revised Fig. 2 with a description of the y-axis is enclosed. Thus, the relative activities to one another is sufficiently clear. Reconsideration and withdrawal of the objection to Fig. 2 are respectfully requested.

V. The Rejection Under 35 U.S.C. § 112, Second Paragraph

The Office Action rejects Claims 7-13 under 35 U.S.C. § 112, second paragraph, asserting that the claims are indefinite for use of the phrase "corresponding to a sequence."

In response, Applicants' amendment to claim 7 obviates the rejection of claims 7-13 under 35 U.S.C. § 112, second paragraph. Reconsideration and withdrawal of the rejection are respectfully requested.

VI. The Rejection Under 35 U.S.C. § 112, First Paragraph

The Office Action rejects Claims 7-19 under 35 U.S.C. § 112, first paragraph, asserting that the claims "contain[] subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s)... had possession of the claimed invention." Applicants respectfully traverse the rejection.

To fulfill the written description requirement, a patent specification must describe an invention and do so in sufficient detail that one skilled in the art can clearly conclude that "the inventor invented the claimed invention." *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (1997); *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) ("[T]he description must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed."). Thus, an applicant complies with the written description requirement "by describing the invention, with all its claimed limitations, not that which makes it obvious," and by using "such descriptive means as words, structures, figures, diagrams, formulas, etc., that set forth the claimed invention." *Lockwood*, 107 F.3d at 1572, 41 USPQ2d at 1966.

Applicants respectfully submit that the specification provides adequate written description for the claimed invention. The specification discloses (1) that out of 56 peptides, the inventors identified two peptide sequences that were particularly preferred for their ability to be cleaved by aggrecanase-2, (2) that one of the two peptide sequences, which was particularly preferred for its ability to be cleaved by both aggrecanase-1 and -2, was used to optimize an assay and (3) that the assay was used for the identification of small molecule inhibitors of aggrecanase-1 and -2. See page 5, lines 26-33. The identified peptides have specific functional properties, namely, (1) they are less than 40 amino acids in length, (2) they comprise a cleavage

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site between a glutamic acid on the an N-terminal side of the cleavage site and a non-polar or uncharged amino acid residue on the a C-terminal side of the cleavage site and (3) they are cleavable by a truncated aggrecanase. Reconsideration and withdrawal of the rejection of Claims 7-13 under 35 U.S.C. § 112, second paragraph, are respectfully requested.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Enclosures: Substitute Specification
Revised Fig. 2